

Work Order ID 58788

Wednesday, May 19, 2010 9:15:50 AM



Page 1

Item ID: D350-591-213

Accept



Setup Start



Revision ID:

Item Name: Heli-Access-Step, Short LH

Stop



Start Date: 5/18/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 5/25/2010 Req'd Qty: 2.00

Customer:

Reference:

Approvals:

Process Plan:

*14*Date: *10-5-19*

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3078

A

DSI 9472

A

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and type labels as per PPP D350-591-213 CHG003

*5 10/06/17**10/06/10*

110

0.00



Large Fab

Large Fab

Memo

0.00

Large Fab

1-Cut D2622-120 extrusion to 59.75" long as per Dwg D3078
2-Drill extrusion as per Dwg D3078 using Jig DT8680 for rivets.
3-Debur

*10.06.07**2*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 58788

Wednesday, May 19, 2010 9:15:50 AM

Page 2

Item ID: D350-591-213

Accept

Setup Start

Revision ID:

Stop

Item Name: Heli-Access-Step, Short LH

Start Date: 5/18/2010 Start Qty: 2.00

Cust Item ID:

Required Date: 5/25/2010 Req'd Qty: 2.00

Customer:




Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120  QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00	5.10.06.07			(+2)			
130  Large Fab Large Fab	Large Fab Memo 1-Bevel end for welding FWD ONLY 2-Weld Support using Jig DT8681, weld Fwd End Plate as per QSI 004 & Dwg D3072 A/R Aluminum Rod m112860 3-Grind End Plate flush m114242	0.00 0.00	10.06.07			2	φ		
140  QC Quality Control	QC9- Inspect visual per QSI004- Fusion Welds Memo	0.00 0.00				(2)	10.06.07		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 58788

Wednesday, May 19, 2010 9:15:50 AM



Page 3

Item ID: D350-591-213

Accept



Setup Start



Revision ID:

Stop



Item Name: Heli-Access-Step, Short LH

Start Date: 5/18/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 5/25/2010 Req'd Qty: 2.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Subtotal

22
416

160

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

110.00.07

2

170

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

SAO

10-06-07

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Page 4

Accept

[illegible]**Setup Start**

Stop

Cust Item ID:[illegible]

Customer:

Reference:

Run Start

Stop

Operation Description

Set Up/ Run Hours

**Draw
Number**

**Draw
Rev.**

**Plan
Code**

**Accept
Qty**

Reject
Qty

Reject Number

**Insp.
Stamp**

0.00

00000000000000000000

Large Fab

0.00

Large Fab

Large Fab

Memo

1- Rivet Leg Assembly as per Dwg D3078.
2-Bevel Aft end for welding
3-Inspect for foreign object as per QSI 024
4-Weld Aft End Plate as per QSI 004 & Dwg D3078
A/R Aluminum Rod mill 2860
5-Grind End Plate flush

0.00

210

QC9- Inspect visual per QSI004- Fusion Welds

9.00

QC

Quality Control

Memo

0.00

220



QC5- Inspect part completeness to step on W/O

0.00

QC

Quality Control

Memo

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 58788

Wednesday, May 19, 2010 9:15:50 AM



Page 5

Item ID: D350-591-213

Accept



Setup Start



Revision ID:

Item Name: Heli-Access-Step, Short LH

Stop



Start Date: 5/18/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 5/25/2010 Req'd Qty: 2.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

230

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

(Handwritten: 2) 10-6-14

240

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME: 11:30am
OVEN TEMPERATURE: 320°F
FINISH TIME: 12:00pm

(Handwritten: 14-10-106/14)

(Handwritten: ZW 10-6-14)

250

Wing Walk as per dwg QSI005 4.4 Batch *(Handwritten: 114132)*

0.00



HandFinish

Memo

0.00

Hand Finishing

(Handwritten: 241 10-6-15)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 58788

Wednesday, May 19, 2010 9:15:50 AM



Page 6

Item ID: D350-591-213

Accept



Setup Start



Revision ID:

Stop



Item Name: Heli-Access-Step, Short LH

Start Date: 5/18/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 5/25/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

260

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

ml 10 06 15 (2)

270

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

10-6-17 sl (2)

280

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

8/10/06/17

(2) LU

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 58788

Wednesday, May 19, 2010 9:15:50 AM



Page 7

Item ID: D350-591-213

Accept



Setup Start



Revision ID:

Item Name: Heli-Access-Step, Short LH

Stop



Start Date: 5/18/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 5/25/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

290

0.00



Packaging

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D350-591-213

Location: _____

PPP Rev: _____

*AVR**10/6/16* *2*

300

0.00



QC

QC21- Final Inspection - Work Order Release

Memo

0.00

Quality Control

10/06/17 *MF**MF**10-6-17*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, May 19, 2010 9:15:54 AM

Page 1
6

Work Order ID: 58788



Parent Item: D350-591-213



Parent Item Name: Heli-Access-Step, Short LH

Start Date: 5/18/2010

Required Date: 5/25/2010

Comments: IPP Rev:B 05.10.14 Modified step 10 KJ/EC
IPP Rev:C 06-06-19 Added D2732-030 AS PER DS19294 JLM
IPP Rev:C 06-06-27 Revised as per DS19340 JLM IPP Rev:D
10.03.17 incorporate seq 180 to 200 remove qc5 DD verified by:JLM

Start Qty: 2.00

Required Qty: 2.00

D2622-120C Manufactured No 110 Each 41.0000 0.5



Step Extrusion



10.06.07

Location Loc Qty Loc Code

WA 41

55214 41

D3067-1 Manufactured No 130 Each 107.0000 1



End Plate



10.06.07

Location Loc Qty Loc Code

WA 107

57926 107

D3063-1 Manufactured No 130 Each 12.0000 1



Support



10.06.07

Location Loc Qty Loc Code

WA 12

51237 12

MS20600-AD4W4 Purchased No 180 Each 683.0000 16



Rivets



10.06.07

Location Loc Qty Loc Code

ST321 683

113368 62

114181 321

114718 300

32

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, May 19, 2010 9:15:54 AM

Page 2

Work Order ID: 58788

Parent Item: D350-591-213

Parent Item Name: Heli-Access-Step, Short LH









Comments: IPP Rev:B 05.10.14 Modified step 10 KJ/EC
IPP Rev:C 06-06-19 Added D2732-030 AS PER DS19294 JLM
IPP Rev:C 06-06-27 Revised as per DS19340 JLM IPP Rev:D
10.03.17 incorporate seq 180 to 200 remove qc5 DD verified by:JLM

Start Date: 5/18/2010

Required Date: 5/25/2010

Start Qty: 2.00

Required Qty: 2.00

D3066-1	Manufactured	No	180	Each	77.0000	2	
							
Spacer							<u>10-06-07</u>
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>		
			WA	77			
			57920	77			<u>4</u>
D3065-041	Manufactured	No	180	Each	24.0000	1	
							
Step Leg Assembly Hi							<u>10-06-07</u>
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>		
			WA	24			<u>2</u>
			56827	8			
			58160	16			
D3067-1	Manufactured	No	200	Each	107.0000	1	
							
End Plate							<u>10-06-07</u>
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>		
			WA	107			
			57926	107			<u>1.2</u>
AN3-35A	Purchased	No	270	Each	91.0000	2	
							
Bolt							<u>10-6-17</u> <u>20</u> <u>SL</u>
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>		
			ST353	91			
			112314	21			
			114382	50			<u>4</u>
			114523	20			

Wednesday, May 19, 2010 9:15:54 AM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, May 19, 2010 9:15:54 AM

Page 3

Work Order ID: 58788

Parent Item: D350-591-213

Parent Item Name: Heli-Access-Step, Short LH

Comments: IPP Rev:B 05.10.14 Modified step 10 KJ/EC
 IPP Rev:C 06-06-19 Added D2732-030 AS PER DSI9294 JLM
 IPP Rev:C 06-06-27 Revised as per DSI9340 JLM IPP Rev:D
 10.03.17 incorporate seq 180 to 200 remove qc5 DD verified by:JLM

Start Date: 5/18/2010

Required Date: 5/25/2010

Start Qty: 2.00

Required Qty: 2.00

D2856-400 Manufactured No 270 f 280.7288 0.6



Abraison Strip



10-6-17sf

Location

Loc Qty

Loc Code

ST403

280.7288

50593

73.6768

56626

207.052

measured
 5106217
 cut qty of 1 at 4.00" X 7.20" as per dwg (D2856-400-720)

AN4-11A Purchased No 270 Each 361.0000 6



Bolt



10-6-17sf

Location

Loc Qty

Loc Code

ST357

361

110382

361

270 Each 0.0000

0.0000

12

AN960JD416



Washer

D2230-1

Manufactured No 270 Each 107.0000 2



12
 1114883 10-6-17sf

10-6-17sf (2v)

Location

Loc Qty

Loc Code

ST476

107

51566

4

54755

21

57828

82

Lug

3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, May 19, 2010 9:15:55 AM

Page 4

Work Order ID: 58788

Parent Item: D350-591-213

Parent Item Name: Heli-Access-Step, Short LH

Comments: IPP Rev:B 05.10.14 Modified step 10 KJ/EC
IPP Rev:C 06-06-19 Added D2732-030 AS PER DS19294 JLM
IPP Rev:C 06-06-27 Revised as per DS19340 JLM IPP Rev:D
10.03.17 incorporate seq 180 to 200 remove qc5 DD verified by:JLM

Start Date: 5/18/2010

Required Date: 5/25/2010

Start Qty: 2.00

Required Qty: 2.00

MS21042L3

Purchased

No

270

Each

1,918.000

2



10-6-17 SP

Nut

Location

Loc Qty

Loc Code

ST300

1918

113537

20

113644

398

114523

1000

114718

500

AN4-13A

Purchased

No

270

Each

211.0000

4



M114752 10-6-17 SP

Bolt

Location

Loc Qty

Loc Code

ST351

211

114523

211

D2732

Manufactured

No

270

f

446.8000

1



10-6-17 SP (2X)

Rubber Extrusion

Location

Loc Qty

Loc Code

ST412

446.8

56516

446.8

cut qty of 4 at 3.00" as per dwg(D2732-030)

Wednesday, May 19, 2010 9:15:55 AM

Shop Packet Print

Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, May 19, 2010 9:15:55 AM

Page 5

Work Order ID: 58788



Parent Item: D350-591-213



Parent Item Name: Heli-Access-Step, Short LH

Start Date: 5/18/2010

Required Date: 5/25/2010

Comments: IPP Rev:B 05.10.14 Modified step 10 KJ/EC
 IPP Rev:C 06-06-19 Added D2732-030 AS PER DS19294 JLM
 IPP Rev:C 06-06-27 Revised as per DS19340 JLM IPP Rev:D
 10.03.17 incorporate seq 180 to 200 remove qc5 DD verified by:JLM

Start Qty: 2.00

Required Qty: 2.00

D2230-3 Manufactured No 270 Each 115.0000 2
 Lug
 642

Location	Loc Qty	Loc Code
ST176	4	
51566	4	
ST476	111	
56855	11	
57827	100	

AN960JD10 Purchased No 270 Each 0.0000 4
 Washer
 MS21042L4 Purchased No 270 Each 2,797.000 6
 642

Nut
 642

Location	Loc Qty	Loc Code
ST139	2	
111827	2	
ST300	2795	
113422	80	
114523	1707	
114718	1000	
9063	8	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, May 19, 2010 9:15:55 AM

Page 6

Work Order ID: 58788



Parent Item: D350-591-213



Parent Item Name: Heli-Access-Step, Short LH

Start Date: 5/18/2010

Required Date: 5/25/2010

Comments: IPP Rev:B 05.10.14 Modified step 10 KJ/EC
IPP Rev:C 06-06-19 Added D2732-030 AS PER DSI9294 JLM
IPP Rev:C 06-06-27 Revised as per DSI9340 JLM IPP Rev:D
10.03.17 incorporate seq 180 to 200 remove qc5 DD verified by:JLM

Start Qty: 2.00

Required Qty: 2.00

AN4-16A

Purchased

No

270

Each

159.0000

4



Bolt



10-6-17SL (2x)

Location

Loc Qty

Loc Code

ST358

159

114129

9

114330

50

114523

100

8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D3078	REV. A SHEET 1 OF 2
DATE 02.09.11		TITLE STEP ASSEMBLY, HI SHORT SCALE NTS	
A	02.09.11	NEW ISSUE	

RELEASED
02.09.20 *#*

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *587EE*
2810-5-19

Part No.	Description	QTY -041	QTY -042
D3078-041	Step Assembly, High Short (LH)	X	
D3078-042	Step Assembly, High Short (RH)		X
D2622-60	STEP EXTRUSION	1	1
D3063-1	SUPPORT	1	1
D3065-041	LEG ASSEMBLY	1	1
D3066-1	SPACER	2	2
D3067-1	END PLATE	2	2
MS20600AD4W4	RIVET	16	16

GENERAL NOTES:

- 1) -041 SHOWN, FOR -042 INSTALL D3063-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

COPYRIGHT © 2002 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

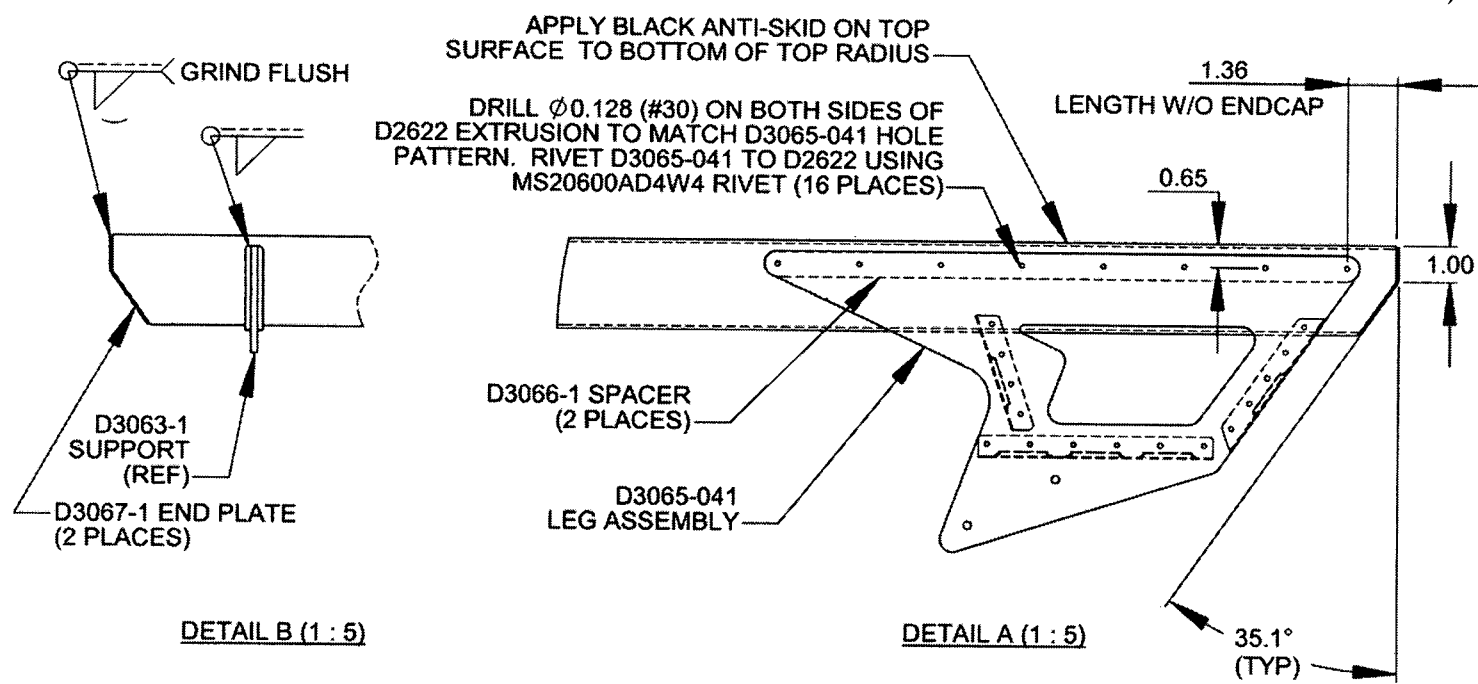
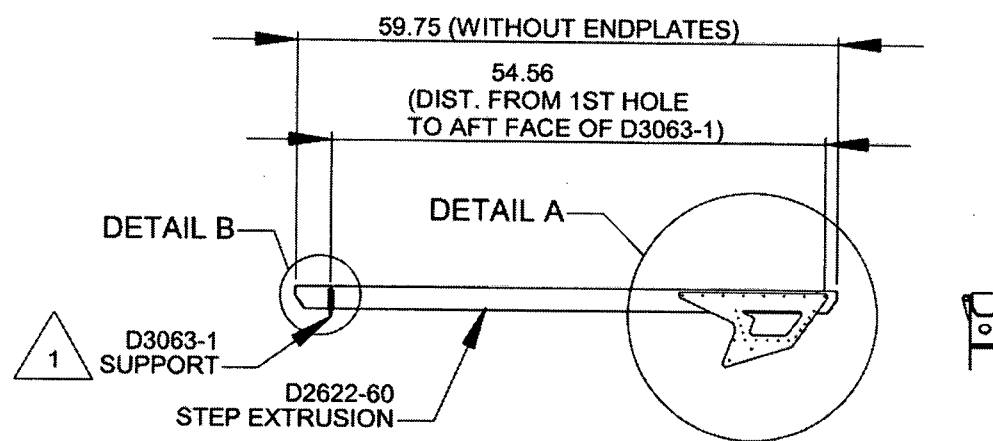
NOTE: Date & initial all entries

DART



DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	REV. A
DATE	TITLE	SHEET 2 OF 2
02.09.11	STEP ASSEMBLY, HI SHORT	SCALE 1:20

RELEASED
02.09.2004
55.75
1.36
58.11



u/s 5878

COPYRIGHT © 2002 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-591 REV. G OR EARLIER
AND
INSTRUCTIONS OF CONTINUED AIRWORTHINESS ICA-D350-591 REV. 2 OR EARLIER
REF CANADIAN STC: SH92-6
REF FAA STC: SH967NE

For D350-591-213/-214/-215/-216 steps, customers have the option of installing D2732-030 cushion under the clamps to accommodate varying crosstube diameters and to improve fit, as indicted in Installation Instructions D350-591. This Service Instruction adds longer AN4-16A bolts to the parts list to allow installation of these cushions. See Figure 1 on sheet 2 of this service instruction for reference. Installation of the D2856-400-720 Abrasion Strips per Installation Instructions D350-591 is not required when the cushions are installed.

For D350-591-213/-214/-215/-216 steps at CHG 003, the parts list of D350-591 Rev. G and ICA-D350-591 Rev. 2 is amended as follows:

ADD:





Qty -213	Qty -214	Qty -215	Qty -216	Part Number	Description
X				D350-591-213	<i>Heli-Access-Step</i> ™, Short Step – High Skid, LH
	X			D350-591-214	<i>Heli-Access-Step</i> ™, Short Step – High Skid, RH
		X		D350-591-215	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, LH
			X	D350-591-216	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, RH
4	4	4	4	AN4-16A	BOLT

Wb 38784

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-Q-01

APPROVED
BY: 
D. SHEPHERD (DE # 02)

DATE: 09.08.05
CERT. NO.: SH92-6
ISSUE NO.: 11

A	NEW ISSUE	RF	09.08.05
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9472	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		BOLT ADDITION	NTS
DATE	09.08.05	COPYRIGHT © 2009 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Qty -211	Qty -212	Qty -213	Qty -214	Qty -215	Qty -216	Qty -311	Qty -312	Part Number	Description
X								D350-591-211	<i>Heli-Access-Step™</i> , Long Step – High Skid, LH
	X							D350-591-212	<i>Heli-Access-Step™</i> , Long Step – High Skid, RH
		X						D350-591-213	<i>Heli-Access-Step™</i> , Short Step – High Skid, LH
			X					D350-591-214	<i>Heli-Access-Step™</i> , Short Step – High Skid, RH
				X				D350-591-215	<i>Heli-Access-Step™</i> , Short Step – Low Skid, LH
					X			D350-591-216	<i>Heli-Access-Step™</i> , Short Step – Low Skid, RH
						X		D350-591-311	<i>Heli-Access-Step™</i> , Long Step – High Skid, LH
							X	D350-591-312	<i>Heli-Access-Step™</i> , Long Step – High Skid, RH
1								D3070-041	STEP ASSEMBLY (HIGH-LONG, LH)
	1							D3070-042	STEP ASSEMBLY (HIGH-LONG, RH)
		1						D3078-041	STEP ASSEMBLY (HIGH-SHORT, LH)
			1					D3078-042	STEP ASSEMBLY (HIGH-SHORT, RH)
				1				D3168-041	STEP ASSEMBLY (LOW-SHORT, LH)
					1			D3168-042	STEP ASSEMBLY (LOW-SHORT, RH)
						1		D3272-041	STEP ASSEMBLY (HIGH-LONG, LH)
							1	D3272-042	STEP ASSEMBLY (HIGH-LONG, RH)
4	4							D2182B035	RUBBER CUSHION
		2	2	2	2			D2230-1	MOUNTING LUG
		2	2	2	2	4	4	D2230-3	MOUNTING LUG
8	8							D2274	RADIUS BLOCK
						2	2	D2618	BUSHING
4	4	4	4	4	4			D2732-030	CUSHION
2	2	1	1	1	1	2	2	D2856-400-720	ABRASION STRIP
2	2							D3064-1	CLAMP
1	1							D3079-041	SUPPORT ASSEMBLY
4	4							D3080-1	CLAMP
						2	2	D3235-1	MOUNTING LUG
						1	1	D3278-041	SUPPORT ASSEMBLY
2	2	2	2	2	2	2	2	AN3-35A	BOLT
10	10	2	2	2	2			AN4-11A	BOLT
		4	4	4	4	8	8	AN4-13A	BOLT
						2	2	AN5-36A	BOLT
4	4	4	4	4	4	4	4	AN960JD10	WASHER
20	20	12	12	12	12	16	16	AN960JD416	WASHER
						4	4	AN960JD516	WASHER
2	2	2	2	2	2	2	2	MS21042L3	NUT
10	10	6	6	6	6	8	8	MS21042L4	NUT
						2	2	MS21042L5	NUT
						1	1	*DSI 9410-011	STEP MODIFICATION KIT

*DSI 9410-011 Step Modification Kits are provided with all D350-591-311 and D350-591-312 Steps. This kit is provided as an option for the installer and is therefore **NOT REQUIRED** to complete the installation of the D350-591-311 or D350-591-312 Steps. Refer to Figure 21 for installation of the DSI 9410-011 Kit.

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

REFERENCE ONLY

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-591 REV. G OR EARLIER
AND
INSTRUCTIONS OF CONTINUED AIRWORTHINESS ICA-D350-591 REV. 2 OR EARLIER

REF CANADIAN STC: SH92-6

REF FAA STC: SH967NE

For D350-591-213/-214/-215/-216 steps, customers have the option of installing D2732-030 cushion under the clamps to accommodate varying cross-tube diameters and to improve fit, as indicated in Installation Instructions D350-591. This Service Instruction adds longer AN4-16A bolts to the parts list to allow installation of these cushions. See Figure 1 on sheet 2 of this service instruction for reference. Installation of the D2856-400-720 Abrasion Strips per Installation Instructions D350-591 is not required when the cushions are installed.

For D350-591-213/-214/-215/-216 steps at CHG 003, the parts list of D350-591 Rev. G and ICA-D350-591 Rev. 2 is amended as follows:

ADD:

Qty -213	Qty -214	Qty -215	Qty -216	Part Number	Description
X				D350-591-213	Heli-Access-Step™, Short Step – High Skid, LH
	X			D350-591-214	Heli-Access-Step™, Short Step – High Skid, RH
		X		D350-591-215	Heli-Access-Step™, Short Step – Low Skid, LH
			X	D350-591-216	Heli-Access-Step™, Short Step – Low Skid, RH
4	4	4	4	AN4-16A	BOLT

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 09.08.05

CERT. NO.: SH92-6

ISSUE NO.: 11

A	NEW ISSUE	RF	09.08.05
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF	DRAWING NO.	REV. A
CHECKED	RF	DSI 9472	SHEET 1 OF 2
MFG. APPR.	NCA	TITLE	SCALE
APPROVED	RF	BOLT ADDITION	NTS
DE APPR.	RF	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
DATE	09.08.05	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries